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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,244	08/22/2006	Anatoly Ivanovich Grigoriev	ZAO0101PUSA	1668
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EXAMINER				
LONG, ROBERT FRANKLIN				
ART UNIT		PAPER NUMBER		
4148				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,244

Applicant(s)

GRIGORIEV ET AL.

Examiner

ROBERT F. LONG

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 02/20/07.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Afanasenko (US 6213922 B1) in view of Averianov (US 7041074 B1) in view of Firer (US D457965 S).**

Regarding claim 1, Afanasenko discloses a device for forced change of man's posture and producing an increased load on the locomotor apparatus, comprising the shoulder, pelvic, knee and foot pads all interconnected by loading elements, (Abstract, **figures 1-3**) wherein each loading element is an inextensible adjusting band and elastic tie without residual deformation, *elastic ties adjusting tension*, (Abstract, **figures 1-3**) attached to it and having an initial length, which, if it is increased, creates a force and the ratio between the lengths of the adjusting bands and elastic ties of each loading

element *load* is applied to a given support (column 4, lines 13-16) being selected; vary and individually select the force of action exerted by the tie-members (**adjuster 3**, column 3, lines 3-6, **figure 1-3**) device additionally comprises a pad, (**supports figures 1-3**) which is arranged on the thoracic part of the trunk and connected with the shoulder pads with use of self- locking buckles, **lock 5**, **figure 1**, (column 4, lines 37-43) the pelvis pad, (**supports figures 1-3**) both the breast and penis pads are having sewed-in load-bearing bands (column 3, lines 56-60) with buckles for interlocking of the breast and pelvis pads, **the pads** are designed so that they can be individually fitted on the patient's body using of additional attachments, the knee joint pads are bandages that can tightly fit around the knee joint, upper quarter of the shin-bone and lower quarter of the hip, and there are hinges arranged on bandage in the plane (along the axis) of the knee joint to accommodate the loading ties, the foot pads are made in the form shoes provided on the foot perimeter with a fabric strip carrying hinges to attach to them the elastic ties, the step between the hinges being not over 10 % of the shoe sole length, or the foot pads are flexible fabric plates capable of embracing them the entire sole of the patient and hinges to attach to them the ties producing the load, is designed as shorts, **supports 1** can be made of any material featuring a minimum degree of extensibility, such as fabric, leather, plastics, (column 3, lines 63-65, **figures 1-3**) belt on the waist and provided with buckles and hooks and with each belt also having a fabric fastener on the interior surface of that part of the belt, which is arranged on the patient's body back surface; the breast and pelvis pads have the mating parts of the fastener; the adjusting bands of the loading elements that are rigidly attached to the front, *increase or to*

reduce a load (column 3, 7-10) side and rear surfaces of the breast and pelvis pads but their ends performed free and provided with buckles and hooks, lock 5/adjuster 3, (column 4, lines 34-43 figures 1-3).

Afanasenko discloses the claimed invention except for the bands creating a force of at least 4 kg and that the elastic bands stretch at least 50 % the initial length; It would have been obvious to the exercise equipment artisan at the time the invention was made to adopt the force range to have at least 4 kg and that the elastic bands stretch at least 50 % the initial length, since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

Afanasenko discloses the claimed invention using at least three supports/belts with adjustable tension bands being hooked via buckles but fails to teach, such that the maximum elongation of the elastic tie is at least 50 % the initial length; and that the device has having two self-tightening locks designed to enable locating the first belt of these belts along the edges of the costal arch and a third belt on the patient's huckle-bones

However Averianov, discloses that the maximum elongation of the elastic tie is at least 50 % the initial length; *band of elastic material with a relative stretching 5-50% (column 10, lines 45-64)* and the device has having two self-tightening, *correcting-rotating element*, locks designed to enable locating the first belt of these belts along the edges of the costal arch, *(column 10, lines 45-64)* and a third belt on the patient's huckle-bones.

Afanasenko discloses the claimed invention except for the device is designed as shorts, thus forming a vest tightly fitting on the patient's body. It has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Further, Firer teaches the ornamental design of the device comprising of shorts, thus forming a vest tightly fitting on the patient's body, along with bands for correcting posture/motor activity **figures 1-4**.

Thus, it would have been obvious to one having ordinary skill in the art to modify the similar ornamental design of Afanasenko with having the same style and effect or to implement the same ornamental design of a human posture suit for increased load on a locomotion apparatus as taught by Firer, since the operation/wearing of the suit taught by Firer could be used in combination with the posture/motor activity correction device to achieve the desired correctional treatment of patients with disturbed posture and motor activity.

Regarding claim 4, Afanasenko discloses a tight fitting of pad around the limb near the knee joint is provided using of stretch-proof adjusting bands, which are rigidly attached to the entire front surface whose free ends are provided with self-locking fabric fasteners, **supports 1** can be made of any material featuring a minimum degree of extensibility, such as fabric, leather, plastics, (column 3, lines 63-65, **figures 1-3**).

Claim Rejections - 35 USC § 103

1. **Claims 2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Afanasenko (US 6213922 B1) in view of Averianov (US 7041074 B1) in view of Firer (US D457965 S) in view of Nafpliotis (US 6364851 B1).**

Regarding claim 2 and 3, Afanasenko discloses the claimed invention except for additional attachments enabling coarse individual fitting of the breast and pelvis pads around the patient are pleats made on the side of the pads corresponding to the back and side surfaces of the trunk and fitted with n zip fasteners (n being not less than 2), which provide, when locked, obtaining n+1 standard sizes designed as a lacing arranged on the front and back surfaces of the pads.

However Averianov, teaches a connecting weights or an engaging surface, *connection 41 has an engaging surface for providing a Velcro-type connection in any place of the outer surface, (column 20, lines 4-11, figures 4 and 5).* Further, Nafpliotis, shows using a suit/vest with a zipper suit device that holds additional attachments or weights, *(column 2, lines 24-31, figures 1 and 2)* and Firer teaches the ornamental design of the device comprising additional attachments enabling fine individual fitting of the breast and pelvis pads of the device on the patient are designed as a lacing arranged on the front and back surfaces of the pads *(view figures 1-4).*

Because Averianov, Fierer, and Nafpliotis teach methods of securing attachments/weights/resistance and the marketplace reflects the reality that applying the corrective/exercise resistance devices such as shown in Averianov and Nafpliotis are commonly understood. It would have been obvious to the exercise equipment

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artisan to modify the similar devices or to substitute on method of attachment (zipper, Velcro, etc) for the other to hold additional attachments/weights/resistance to achieve the desired amount of resistance with the posture/motor activity correction device and to achieve the desired correctional treatment of patients with disturbed posture and motor activity. Further, it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Thus, it would have been obvious to one having ordinary skill in the art to modify the similar ornamental design of Afanasenko with having the lacing to fit the suit to the individual, since the operation or wearing of the suit taught by Firer and/or Averianov could be used in combination with the posture/motor activity correction device to achieve the desired fitting and style.

Claim Rejections - 35 USC § 103

2. **Claims 5- 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Afanasenko (US 6213922 B1) in view of Averianov (US 7041074 B1) in view of Firer (US D457965 S) Nafpliotis (US 6364851 B1) and further in view of Burdenko (US 5372565 A).**

Regarding claim 5, Afanasenko in view of Averianov in view of Firer in view of Nafpliotis discloses each loading element is provided with a dynamometric tape to check the pulling force *tension adjusters in the device enables one to vary and individually select the force, (column 20, lines 4-11, figures 4 and 5).*

Burdenko, also teaches using a *means to measure tension and length (column 7, lines 8-25, figures 1 and 7)*.

Because both Burdenko and Afanasenko teach methods of measuring tension and/or pulling force and the marketplace reflects the reality that applying the resistance measurement devices (rulers, watches, interactive video games, and etc.) such as discussed in Averianov and Burdenko and the technologies are commonly understood. It would have been obvious to the exercise equipment artisan to implement any dynamometric tape method of measurement to achieve the desired measurements.

Regarding claim 6, Afanasenko in view of Averianov in view of Firer in view of Nafpliotis discloses all the pads carry hinges to attach the loading elements, ***supports 1 can be made of any material featuring a minimum degree of extensibility, such as fabric, leather, plastics, (column 3, lines 63-65, figures 1-3)***.

Averianov, also teaches pads that carry hinges to attach the loading elements, *connection 41 has an engaging surface for providing a Velcro-type connection in any place of the outer surface, (column 20, lines 4-11, figures 4 and 5)*.

Because both Averianov and Afanasenko teach methods of carrying and/or attaching weight and the marketplace reflects the reality that weights/resistance can be attached in a number of ways (Velcro, zipper, belts) such as discussed in Averianov and Burdenko and the technologies are commonly understood. It would have been obvious to the exercise equipment artisan to implement any weight harness carrying method to achieve the desired exercise or corrective rehabilitation.

Regarding claim 7, Afanasenko in view of Averianov in view of Firer in view of Nafpliotis discloses hinges for attachment of the tensioning elements are arranged on two loop bands one of these has the hinges facing up and the other of these – down, *shaped as elastic tie-members arranged on the patient's body surface so as to follow anatomical arrangement of the skeletal muscles, each of the tie-members being connected to two supports, (column 4, lines 54-58, and column 3, lines 63-65, figures 1-3).*

Regarding claim 8, Afanasenko in view of Averianov in view of Firer in view of Nafpliotis fails to disclose a coordinate net is applied to the surfaces of all the pads, making it possible to register the fixation points and direction of the pulling force.

However, Burdenko teaches measuring the pulling force, *a means to measure tension and length (column 7, lines 8-25, figures 1 and 7).*

Because both Burdenko and Afanasenko teach methods of measuring tension and/or pulling force and the marketplace reflects the reality that applying the resistance measurement devices (rulers, watches, interactive video games, and etc.) such as discussed in Averianov and Burdenko are commonly understood. It would have been obvious to the exercise equipment artisan to implement any dynamometric tape method of measurement to achieve the desired measurements.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited for disclosing related limitations of the applicant's claimed and disclosed invention: **Romney (US 5308305**

A), Pryor (US 20060033713 A1), MARSHMAN (US 2097376 A), LADDIE (US 3162442 A), STEVENS (US 3295517 A), Name (US 0807908 A), Koscielny et al. (US 7153246 B2), Longo (US 20070213186 A1), Seles (US 20030045408 A1), Matsuoka (US 20030027698 A1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT F. LONG whose telephone number is (571)270-3864. The examiner can normally be reached on 5-4-9 (7:30-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terell McKinnon can be reached on 571-272-4797 or 571-272-41340. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert F. Long
Thursday, March 20, 2008
/Terrell L McKinnon/ Supervisory Patent Examiner, Art Unit 4148